This listing of claims replaces all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Canceled)

2. (Currently Amended) The ~~A~~ library~~, as claimed in~~ of claim ~~1~~ 40, wherein~~:~~ ~~said plurality of~~ at least one of said plurality of data storage elements is selected from one of the group consisting of: a tape, a tape cartridge, a tape magazine, a disk, a disk cartridge, a disk pack, a disk drive, a disk drive pack, a memory stick and a memory card. ~~locations comprises a location capable of holding a magazine; said transport unit is adapted to move a magazine to and from said location; and said controller is adapted to create an inventory comprising locations capable of holding a magazine~~.

3. (Canceled)

4. (Currently Amended) The ~~A~~ library~~, as claimed in~~ of claim ~~1,~~ 43 wherein~~:~~ said data first compatible transfer interface is adapted to cooperate with said ~~a~~ drive pack when said drive pack is at least partially inserted in ~~comprises~~ a receiving port associated with said data transfer interface ~~for receiving and establishing~~ wherein said transfer interface establishes a communication path ~~with a~~ between said drive pack ~~so that data can be transferred between the drive pack and a~~ and said host computer. ~~;said plurality of storage locations comprises a location capable of holding a drive pack; said transport unit is adapted to move a drive pack between said location and said port; and said controller is adapted to create an inventory comprising an inventory of locations capable of holding a drive pack.~~

5. (Currently Amended) The ~~A~~ library~~, as claimed in~~ of claim ~~1~~ 40, wherein~~:~~ said plurality of data storage elements are disc drives that cooperate with said data transfer interface ~~comprises~~ via a port for receiving said drive. ~~and establishing a communication path with a drive so that data can be transferred between the drive and a host computer; said plurality of storage locations comprises a location capable of holding a drive; said transport unit is~~

~~adapted to move a drive between said location and said port; and said controller is adapted to create an inventory comprising an inventory of locations capable of holding a drive.~~

6. (Currently Amended) The ~~A~~ library~~, as claimed in~~ of claim ~~1~~ 40, wherein~~:~~ said plurality of data storage elements are tape cartridges each capable of cooperating with said data traansfer interface, said interface comprises a drive for receiving ~~a~~ said cartridge. ~~and establishing a communication path with a cartridge so that data can be transferred between the cartridge and a host computer; said plurality of storage locations comprises a location capable of holding a cartridge; said transport unit is adapted to move a cartridge between said location and said drive; and said controller is adapted to create an inventory of locations capable of holding a cartridge.~~

7. (Currently Amended) A robotic data storage library for operation with at least one data storage element and with the ability to reduce ~~the~~ an amount of ~~transition~~ time to reach an operational state after a transition of the library from a power-off state to a power-on state, the robotic data storage library comprising: a plurality of storage locations, each capable of holding at least one of said data storage elements; a data transfer interface for receiving ~~a~~ one of said data storage elements and establishing a communication path with ~~a~~ said data storage element so that data can be transferred between the data storage element and a host computer; a transport unit for moving ~~a~~ one of said data storage elements between one of said plurality of storage locations and said data transfer interface; a nonvolatile memory for storing an inventory of locations of the robotic data storage library; a means for causing an audit to be performed to create an inventory, causing said inventory to be stored in said nonvolatile memory prior to ~~a~~ said transition ~~of the robotic data storage library from a power-off state to a power-on state~~, and causing said inventory to be transmitted to the host computer after said transition. ~~of the robotic data storage library from a power-off state to a power-on state.~~

8. (Currently Amended) The ~~A~~ library~~, as claimed in~~ of claim 7 wherein~~:~~ said plurality of storage locations comprises at least one location further capable of holding a magazine; said transport unit is adapted to move ~~a~~ said magazine to and from said location; and said means for causing ~~an~~ said audit to be performed to create ~~an~~ said inventory comprises means for

creating an inventory of locations capable of holding ~~a~~ said magazine.

9. (Currently Amended) The ~~A~~ library~~, as claimed in~~ of claim 8 wherein~~:~~ said means for causing ~~an~~ said audit to be performed to create ~~an~~ said inventory comprises means for creating an inventory of locations each capable of holding ~~a~~ one of said magazines and an inventory of locations capable of holding ~~a~~ all other of said data storage elements.

10. (Currently Amended) The ~~A~~ library~~, as claimed in~~ of claim 7 wherein~~:~~ said data transfer interface comprises a port for receiving a drive pack and establishing a communication path with ~~a~~ said drive pack so that data can be transferred between the drive pack and ~~a~~ said host computer; said plurality of storage locations comprises a location capable of holding ~~a~~ said drive pack; said transport unit is adapted to move ~~a~~ said drive pack between said location and said port; and said means for causing ~~an~~ said audit to be performed to create ~~an~~ said inventory comprises means for creating an different inventory of locations capable of holding ~~a~~ said drive pack.

11. (Canceled)

12. (Currently Amended) ~~A~~ The method~~, as claimed in claim 11,~~ of claim 46 wherein said ~~step of making a determination~~ determining step comprises querying an operator.

13. (Currently Amended) ~~A~~ The method~~, as claimed in~~ of claim 12~~,~~ wherein~~,~~ said transmitting step is only performed after verifying from said querying step that said inventory was stored accurately in said nonvolatile memory.

~~if a result of said step of querying comprises an indication of reliability of said inventory, said step of transmitting said inventory is performed following said step of querying.~~

14. (Currently Amended) ~~A~~ The method~~, as claimed in~~ of claim 12~~,~~ wherein~~,~~ if said verifying step indicates that said inventory was not stored accurately, performing a new inventory and transmitting said new inventory. ~~a result of said step of querying step comprises an indication of unreliability of said inventory, transmitting said inventory to the host computer and~~

~~performing a background audit of said robotic data storage library.~~

15. (Canceled)

16. (Currently Amended) ~~A~~ The method~~, as claimed in~~ of claim 46 ~~11, wherein said step of making a determination comprises~~ further comprising checking a status of a sensor.

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Currently Amended) ~~A~~ The method~~, as claimed in~~ of claim 16 ~~21~~, wherein said ~~step of making a determination~~ determining step comprises performing a partial audit.

21. (Currently Amended) ~~A~~ The method~~, as claimed in~~ of claim 20~~,~~ wherein~~,~~ if a result of said partial audit comprises an indication of ~~reliability~~ validation of said inventory, said step of transmitting said inventory is performed following said step of performing a partial audit.

22. (Currently Amended) ~~A~~ The method~~, as claimed in~~ of claim 20, wherein, if a result of said partial audit comprises an indication of ~~unreliability~~ invalidation of said inventory, transmitting said inventory to the host computer with notice of invalidation and performing a background audit of said robotic data storage library.

23. (Currently Amended) ~~A~~ The method~~, as claimed in~~ of claim 20, wherein, if a result of said partial audit comprises an indication of ~~unreliability~~ invalidation of said inventory, performing an off-line audit of said robotic data storage library to establish a new inventory and transmit said new inventory instead of said inventory.

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Currently Amended) ~~A~~ The method~~, as claimed in~~ of claim ~~11~~ 43~~, wherein,~~ further comprising updating said inventory in said nonvolatile memory, following said transport unit moving ~~a~~ one of said data storage elements. ~~updating said inventory in said nonvolatile memory.~~

30. (Currently Amended) ~~A~~ The method~~, as claimed in~~ of claim ~~11~~ 43~~,~~ wherein said inventory further comprises an accounting of all storage locations not accommodating one of said ~~inventory of locations of said robotic data storage library capable of holding a~~ data storage elements.

31. (Currently Amended) ~~A~~ The method~~, as claimed in~~ of claim ~~11~~ 43~~,~~ wherein said inventory further comprises an accounting of ~~inventory of locations of said robotic data storage library capable of receiving~~ said data transfer interfaces. (all open data transfer elements)

32. (Canceled)

33. (Currently Amended) A method for reducing the transition time required to reach an operational state of a robotic data storage library after a ~~transition of~~ switching the library from a power-off state to a power-on state, the method comprising: providing ~~a~~ said robotic data storage library comprising: a plurality of storage locations, each capable of holding at least one data storage element, a data transfer interface for receiving ~~a~~ one of said data

storage elements and establishing a communication path with ~~a~~ one of said data storage elements so that data can be transferred between the data storage element and a host computer, and a transport unit for moving ~~a~~ one of said data storage elements between one of said plurality of storage locations and said data transfer interface; auditing said robotic data storage library to create an inventory of locations of said robotic data storage library; storing said inventory of said robotic data storage library in a nonvolatile memory prior to ~~a~~ said transition ~~from a power-off state to a power-on state~~; transitioning said robotic data storage library from a power-off state to a power-on state; transmitting, following said step of transitioning, said inventory to the host computer.

34. (Currently Amended) ~~A~~ The method, as claimed in claim 33, wherein, following said step of transitioning, monitoring operation of said robotic data storage library and said inventory for an error in said inventory, and, if ~~an~~ said error is found, performing an audit.

35. (Currently Amended) ~~A~~ The method, as claimed in claim 34, wherein said step of performing an audit comprises performing a background audit to update said inventory.

36. (Currently Amended) ~~A~~ The method, as claimed in claim 34, wherein said step of performing an audit comprises performing an off-line audit to update said inventory.

37. (Currently Amended) ~~A~~ The method, as claimed in claim 33, wherein, following said transport unit moving ~~a~~ one of said data storage elements, updating said inventory in said nonvolatile memory.

38. (Canceled)

39. (Canceled)

40. (New) A robotic data storage library comprising:

a plurality of data storage elements each disposed in one of a plurality of accommodating storage locations wherein each of said data storage elements is

adapted to cooperate with a compatible data transfer interface;

said data transfer interface capable of receiving data from a host for storage on said cooperating data storage element;

a transfer unit for moving each of said data storage elements between one of said storage locations and said data transfer interface;

a controller prior to a power transition from a power-off state to a power-on state is capable of causing an audit to be performed to create an inventory of at least where said storage elements are located within said library and in response to sensing said power transition, said controller causing transmission of said inventory to said host; and

nonvolatile memory for storing said inventory.

41. (New) The library of claim 40 wherein said plurality of data storage elements comprise a first type of storage element and a second type of storage element wherein said first and second types of storage elements are adapted to respectively cooperate with a first and second compatible data transfer interface.

42. (New) The library of claim 41 wherein said inventory includes both said first type and second type of storage elements.

43. (New) The library of claim 41 wherein said first type of storage element is a disk drive pack and said second type of storage element is a tape magazine.

44. (New) A method for improving time to reach an operational state of a robotic data storage library when turned on, the method comprising:

transitioning said library from a power-off state to a power-on state, wherein said library comprises a transfer unit for moving one of a plurality of data storage elements between an accommodating storage location and a data transfer interface;

auditing said library to create an inventory of said storage locations that are accommodating one of said data storage elements prior to said transition;

storing said inventory in a nonvolatile memory prior to said transition;

transmitting said inventory to a host computer after said transition.

45. (New) The method of claim 44 wherein said inventory can include storage locations not accommodating a data storage element.

46. (New) The method of claim 44 further comprising determining if said inventory was stored accurately in said nonvolatile memory after said transition.

47. (New) The method of claim 46 wherein said transmitting step is only performed upon determining that said inventory was stored accurately in said nonvolatile memory after said transition.

48. (New) The method of claim 16 wherein said transmission step is accomplished after said status of said sensor validates said inventory was stored accurately.

49. (New) The method of claim 16 further comprising creating a new inventory if said status of said sensor indicates said inventory was stored inaccurately and said inventory for said transmission is replaced with said new inventory.

50. (New) The method of claim 44 wherein said plurality of data storage elements includes a first and second type of data storage element and said storage locations are adapted to hold said first second type of data storage elements.

51. (New) The method of claim 50 wherein said inventory includes a first inventory of said first type of data storage elements and a second inventory of said second type of data storage elements.

52. (New) The method of claim 44 wherein one of said plurality of data storage elements is selected from one of the group consisting of: tape cartridge, tape magazine, disc drive pack, optical compact disc, flash memory device, magnetic disc drive, magneto-optical drive and floppy disc drive.

53. (New) The method of claim 44 wherein said audit includes a transport unit location of where said transport unit is disposed.

54. (New) A method for reducing an operational state for a robotic data storage library when turned on, said library comprising: a transfer unit, a plurality of storage locations each capable of accommodating a data storage element and at least one data transfer interface wherein said transfer unit is capable of moving one of said data storage elements from one of said accommodating storage locations to said at least one data transfer interface, the method comprising:

transitioning said library from a power-off state to a power-on state via a switch comprised by said library;

auditing said library to determine which of said locations are accommodating said data storage elements and which of said locations are not accommodating said data storage elements;

creating an inventory of said audit;

storing said inventory in a nonvolatile memory prior to said transitioning step; and

transmitting said inventory to a host computer after said transitioning step.

55. (New) The method of claim 54 further comprising transporting one of said data storage elements between one of said storage locations and said at least one data transfer interface; and updating said inventory in said nonvolatile memory following said transporting step.